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document Thermal Conduction in Magnetized Turbulent Gas Jungyeon Cho and A. Lazarian Dept. of Astronomy, University of Wisconsin, Madison, WI53706; cho, lazarian@astro.wisc.edu Albert Honein, Bernard Knaepen, Stavros Kassinos, and Parviz Moin Center for Turbulence Research, Stanford University, Stanford, CA94305; honein, bknaepen, moin@stanford.edu

abstract Using numerical methods, we systematically study in the framework of ideal MHD the effect of magnetic fields on heat transfer within a turbulent gas. We measure the rates of passive scalar diffusion within magnetized fluids and make the comparisons a) between MHD and hydro simulations, b) between different MHD runs with different values of the external magnetic field (up to the energy equipartition value), c) between thermal conductivities parallel and perpendicular to magnetic field. We do *not* find apparent suppression of diffusion rates by the presence of magnetic fields, which implies that magnetic fields do not suppress heat diffusion by turbulent motions.